

Though nearly a million children are regularly given drugs to control "hyperactivity," we know little about what the disorder is, or whether it is really a disorder at all.

SUFFER THE RESTLESS CHILDREN

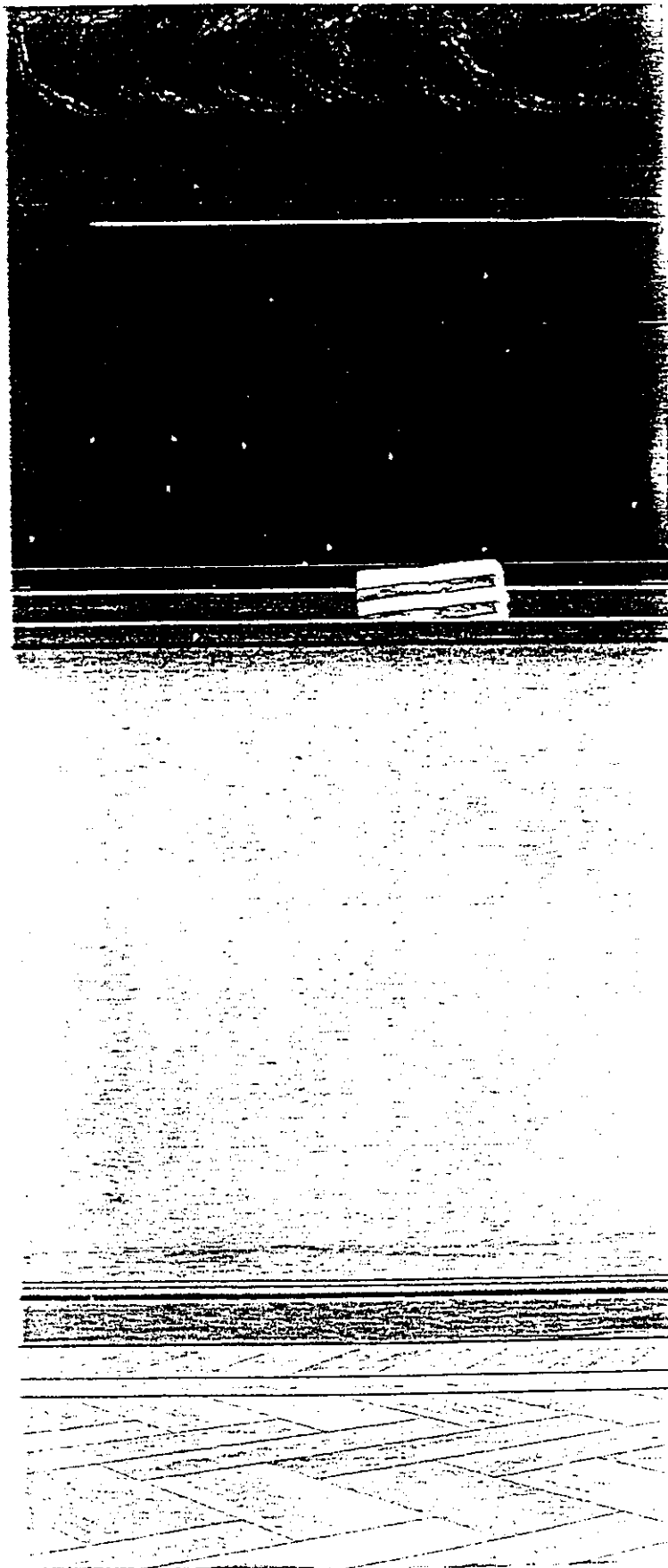
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IN MARCH OF 1902 DR. GEORGE STILL, STOOD BEFORE the Royal College of Physicians, in London, and described some children he had observed—mostly boys—who seemed to him restless, passionate, and apt to get into trouble. The children were suffering, he declared, from "an abnormal defect of moral control."

Despite his invocation of morality, Still's lecture is often billed as the first recorded discussion of hyperactivity. Thousands of articles on the subject have been published in professional journals since then, the great majority of them within the past two decades. A good proportion of these papers begin by citing the pervasiveness of the disorder. An opening sentence such as "Hyperactivity is the single most prevalent childhood behavioral problem" is usually regarded as sufficient, because the readers of these journals are already convinced that, on average, at least one hyperactive child sits in every elementary school classroom in the United States.

The actual estimates vary, however, and not by a little. If a psychiatrist says that about three percent or 10 percent or between one and five percent of elementary school children are hyperactive, this is simply a rough average of studies whose findings differ dramatically. One series of papers estimated the rate of hyperactivity at 10 to 20 percent. A California survey put it at precisely 1.19 percent. A nationally recognized expert says without hesitation that it is six percent. The one thing researchers generally agree on is that among children labeled hyperactive, boys outnumber girls by at least four to one.



The disparities can be explained to some extent by the varying stringency of the criteria that are applied, and the assumptions guiding those applying them. According to the latest guidelines for diagnosing what is now officially called attention-deficit hyperactivity disorder (ADHD), the problem must have been noticed before age seven, must persist for at least six months, and must include any eight of fourteen symptoms, among which are the following: the child is easily distracted by extraneous stimuli; has difficulty sustaining attention, following through on instructions, or waiting his or her turn in games; and often does such things as talk excessively, fidget with hands or feet, squirm while sitting down, lose things, and fail to listen to what is being said to him or her.

Most experts emphasize the importance of teachers' observations, which are often quantified on a rating scale that was developed by Keith Conners, a psychologist, in the late 1960s. When that score—or any single judgment—is the sole basis for diagnosis, 10 percent or more of all elementary school children may be labeled hyperactive. But if the observations of others—parents or pediatri-

unsettling is a flicker of doubt about the integrity of the diagnosis itself. Can we in fact be confident that any child has a disorder called hyperactivity or ADHD?

Overwhelmingly, child psychiatrists and psychologists answer in the affirmative. Just because the prevalence of hyperactivity is difficult to pin down, or because we can't be sure a particular child is afflicted with it, doesn't mean the phenomenon isn't real, according to most people in the field. "If you'd ever seen a hyperactive kid, you'd know it," the psychologist Susan Campbell says. "Something's there." But my review of more than a hundred journal articles and book chapters, and also conversations I had with many of the leading researchers in the field, suggests that this assessment may be too sanguine.

First, whether such a distinctive disorder exists is open to question, because each of the symptoms that are supposed to lead to a diagnosis of hyperactivity—restlessness, impulsiveness, and difficulty paying attention—occurs at least as often in children who have entirely different problems, as Cohen and Minde discovered.

Second, the key symptoms often do not appear togeth-

Can we be truly confident that any particular child has a disorder called hyperactivity?

cians, for example—are also taken into account, then the prevalence of the disorder can be as low as one percent.

The experience of two Canadian researchers, Nancy J. Cohen and Klaus Minde, is illustrative. They had the teachers of 2,900 kindergartners in one community submit the names of children thought to be hyperactive. The researchers expected, because of the estimate offered by a widely used textbook, to find that four to 10 percent would be referred. At first their procedure yielded sixty-three names. But when they looked more closely, they found that most of these children had altogether different psychological problems or else seemed to be suffering from poor nutrition or too little sleep. Only twenty-three children—less than eight tenths of one percent—were left in the hyperactive category after this more rigorous screening.

The wildly divergent estimates of prevalence are disturbing enough in themselves, given that each percentage point stands for hundreds of thousands of children. But they also underscore the fact that different criteria for diagnosis produce different conclusions about whether a particular child will carry the ADHD label and, as a consequence, be required to swallow a drug every day. Most

er. Douglas G. Ullman, a psychologist, and his colleagues have found that children said to be hyperactive do not always turn out to have difficulty paying attention, and vice versa. One's ability to predict that a child will be inattentive because he is restless—or the other way around—"is not much better than if one tossed a coin to decide the matter," the authors concluded.

Third, the procedure for deciding which behaviors belong on that list of fourteen, and also the decision that eight of them (rather than seven or ten) will suffice for a diagnosis of hyperactivity, are arbitrary. These decisions are "made by committee," as Dennis Cantwell, a leading researcher in the field who was himself on such committees, admits.

A score on the Conners Teacher Rating Scale, or any of the other scales used in diagnosis, gives the appearance of scientific precision, as though it were, say, a white-cell count. In reality, the score is nothing more than a numerical value that sums up a particular teacher's subjective judgments about whether a child bounces around too much.

Some theorists have argued that ADHD is actually "heterogeneous"—that it is characteristic not of a single

population of hyperactive children but of several distinct subgroups. This has a professional ring to it and seems plausible on its face, but it simply sets the problem back a step. What *are* the disorders mistakenly collected under the ADHD umbrella? How do we know that *they* are valid diagnostic categories? One might say that using the word "heterogeneous" tells more about what we don't know than about what we do.

This history of the diagnosis does nothing to allay one's doubts. For many years children with symptoms identical to those that are now considered to add up to hyperactivity were said to have "minimal brain damage." When researchers eventually acknowledged that they had no proof these children's brains were actually damaged, the label was changed to "minimal brain dysfunction." This, in turn, gave way to the diagnosis of "hyperkinetic reaction," which became "attention deficit disorder with (or without) hyperactivity," which became "attention deficit hyperactivity disorder."

These changes—and the latest in the series will surely not be the last—reflect something more than quibbling over labels. They suggest a fundamental disagreement about what, if anything, is behind the labels. "The whole notion has gone through so many metamorphoses as to suggest a catastrophe in terms of conceptual integrity," says Gerald Coles, the author of *The Learning Mystique*, a critical analysis of what are commonly called learning disabilities. "Rather than moving toward ever greater precision, they're constantly sweeping over the disasters of last year's conception."

A new diagnosis has appeared in every successive revision of the mental-health clinician's bible, the *Diagnostic and Statistical Manual of Mental Disorders*, or *DSM*. Whereas *DSM II* talked about "hyperkinetic reaction," the third edition, published in 1980, switched to "attention deficit disorder": now difficulty paying attention seemed to be the core of the disorder, with excessive activity merely an optional by-product. In 1987, with the publication of the latest revision (*DSM III-R*), the definers changed their minds again, deciding that insufficient data existed to support the emphasis on attention, and that hyperactivity really was the center of the problem after all.

The Problem May Be the Classroom

IN LIGHT OF ALL THIS, DISAGREEMENTS ABOUT whether a given child is "hyperactive" seem to signify something more than uncertainty about the applicability of an established diagnosis. Consider the rather obvious point made by Kenneth D. Gadow, a professor of special education at the State University of New York at Stony Brook: "What is diagnosed as hyperactivity by one physician may be considered emotional disturbance or 'spoiled child syndrome' by another."

When perceptions of that same child are compared across different environments, one is even less likely to

find consensus about his status. A number of studies have by now shown "relatively low levels of agreement among parents, teachers, and clinicians on which children should be regarded as hyperkinetic," the psychiatrist Michael Rutter has written.

Why does the parent at home rate the child differently from the teacher at school? Simple subjectivity is not the answer, as it turns out. The fact is that children act differently in different places. Therefore, the idea of a unified disorder threatens to slip away completely.

Those in the field accept as common knowledge that symptoms of hyperactivity often vanish when a child is watching TV, engaged in free play, or doing something else he likes. Similarly, the way a child's environment is organized and the way tasks are presented can mean the difference between normal behavior and behavior called hyperactive, a finding that has been replicated again and again. This is particularly true for the symptoms related to paying attention.

Since the early 1970s, for example, researchers have known that children diagnosed as hyperactive do well at tasks that they can work on at their own pace, as opposed to tasks controlled by someone else. Many hyperactive children also seem virtually problem-free when they receive individual attention from a teacher or when the experimenter stays in the room with them. And their ability to concentrate on what they're doing picks right up when a reward is hanging in the balance (although the effect doesn't always last if the reward is withdrawn). This suggests that the problem may be more one of willingness to comply—especially in performing tasks that the children find boring—than one of a built-in deficit.

"The degree to which hyperactives are viewed as deviant depends on the demands of the environment in which they function," the veteran Canadian researchers Gabrielle Weiss and Lily Hechtman wrote in *Science* in 1979. One might even amend that to read, "The degree to which children are viewed as hyperactive in the first place depends. . . ." But rather than seriously questioning the legitimacy of the diagnosis, specialists have responded by fashioning a subcategory of the disorder called "situational hyperactivity." Keith Conners has written, "When data from parent and teacher conflict . . . there may be a true 'situational' hyperactivity, a pattern of behavior which only emerges, say, in the school setting but not the home setting."

Of course, this approach cannot be proved wrong, just as it would not be technically inaccurate to say that a child who cries when her friend moves away is suffering from a syndrome called "situational depression." The question is, how is such labeling useful, and what sorts of inquiry does it serve to encourage or discourage?

Some of us remember things more accurately if we see them rather than hear them; some of us learn better if abstract ideas are represented spatially. Similarly, some children learn better and jump around less if they receive

personal attention or get to design their own tasks. In 1978 the psychologists Charles E. Cunningham and Russell A. Barkley offered the heretical suggestion that "hyperactive behavior may be the *result* rather than the cause of the child's academic difficulties." This possibility raises the question of why these children fail—whether it has to do with how they are being taught.

A small study described in 1976 compared a group of hyperactives in a traditional classroom with a group in a classroom where instruction was individualized, children were relatively free to move around the room, and the teacher planned lessons in cooperation with the children. After a year the teacher's ratings showed almost no change for the first group, but the hyperactivity scores of those in the open classroom had dropped dramatically. A second study, which compared hyperactive children with a control group, found that the difference between them—as judged by the experimenters rather than the teachers—remained significant in a formal classroom but effectively disappeared in an open classroom. Although the studies are by no means conclusive, virtually no one has taken the trouble to investigate the question further.

If a teacher finds few hyperactive children in her class, that may be because she designs appropriate tasks for students who might otherwise squirm, or because she is less rigid in her demands than other teachers, and more tolerant of what educators refer to as "off-task behavior." (The use of this designation may say as much about the teacher as about the student.) "Hyperactivity," one researcher says, "typically comes to professional attention . . . when the child cannot conform to classroom rules." This invites questions about how reasonable the rules are.

But the psychiatrists who design the research, shape the diagnostic categories, and prescribe the drugs rarely explore how children are being taught, and even then the question tends to be treated as an aside. In 1986 the *Journal of Children in Contemporary Society* and *Psychiatric Annals* both devoted special issues to hyperactivity, and neither addressed so much as a paragraph to such matters as classroom organization and teachers' attitudes.

The Potency of Family Dynamics

IN ADDITION TO THE POSSIBILITY THAT SYMPTOMS AScribed to hyperactivity may result from unsuitable classroom environments or academic failure, a number of studies have found that warped family patterns often accompany hyperactivity. As Weiss and Hechtman have summarized the research, "Families of hyperactives tended to have more difficulties, mainly in the areas of mental health of family members, marital relationships, and, most particularly, the emotional climate of the home. . . . [and they] tended to use more punitive, authoritative approaches in child rearing than [other] families."

Particular styles of discipline and interaction, of

course, may be the consequence of a parent's frustration with a child who is already hyperactive for other reasons. This is the view of Russell Barkley, who formerly headed the American Psychological Association's section on clinical child psychology. His own research shows that parents' reliance on commands and punishments drops significantly when their hyperactive children are put on medication. "The majority of the problem is the effects of the child's behavior on the parents, not the other way around," he asserts.

But this may be too much of a leap. "Knowing that the behavior changes when the child is on Ritalin doesn't tell you how the behavior got started in the first place," says Susan Campbell, who adds that no one knows why some children are more fidgety or impulsive than others.

L. Alan Sroufe, a professor of child psychology at the University of Minnesota, thinks that early parent-child dynamics may play a key role. In a study with Deborah Jacobvitz, Sroufe followed children from birth until age eight and discovered that those who were eventually diagnosed as hyperactive were more likely, during their infancy, to have care-givers who were rated as "intrusive." Rather than responding to the baby's needs, such a care-giver might, for example, push a bottle into its mouth even though it was trying to turn its head away.

Sroufe reasons that most of us, with our parents' help, learned quite early to control ourselves when circumstances demanded. However, some parents may overstimulate their children precisely when the children are already out of control. These children may well come to fit the ADHD pattern. Data to confirm this conclusion do not yet exist, Sroufe concedes, but then, few people have gone looking for them. No other researcher has ever tried to predict hyperactivity from observations of early care-giving, and neither has anyone helped overstimulating parents to modify their behavior in order to see if the children have fewer problems later on.

While they were investigating parent-child interactions, Sroufe and Jacobvitz looked back to infancy for differences that might have existed between hyperactive and other children, in case those mattered more. They came up virtually empty-handed. Hyperactivity doesn't seem to be connected to delivery complications or prematurity, to infant reflexes or distractibility, or to any of dozens of other measures. Indeed, Michael Rutter has reported in the *American Journal of Psychiatry*, "There is no indication of any biochemical feature that is specific to the hyperkinetic syndrome."

Theoretically, the behavior of some tiny subset of those children called hyperactive may be traceable to neurotransmitters, the brain's chemical messengers, or to genes or neurological damage. To date, though, no generally accepted evidence of an organic, or biological, cause of hyperactivity has been found.

This has not been for lack of trying. The medical journals are littered with the remains of discarded theories

that purported to explain restlessness in children as a symptom of disease. For example, for quite some time stimulant drugs were believed to have a "paradoxical effect" on hyperactive children; the very idea that hyperactives—and only hyperactives—were quieted by this sort of medication was said to prove that their troubles were biochemical. But in 1978 the psychiatrist Judith Rapoport and her colleagues published a study showing that stimulants had precisely the same effects on the motor activity and attention span of normal children. Later studies showed that similar effects occur in normal adults and in children with entirely different problems.

The overwhelming majority of the research has shown that most hyperactive children have no discernible brain damage or neurological abnormalities; their EEG readings are not distinctive. For a while clinicians thought that the nervous systems of hyperactives were overaroused. Then they were believed to be underaroused. Neither of these theories has been proved, however. What is remarkable here is not the series of failures to find a biological cause but the tenacity with which this line of investigation continues to be pursued. For every study investigating the families of hyperactive children, hundreds search for neurological abnormalities. This is the sort of research that gets funded—not merely in the case of hyperactivity but in mental health more generally—possibly because this is how the investigators (and the grantors themselves) were trained. The humanistic psychologist Abraham Maslow once observed that if people are given only hammers, they will treat everything they come across as if it were a nail.

"People who don't have a high tolerance for ambiguity aren't going to look at family factors," Susan Campbell says. "In the biological sphere it seems as if one is on firmer ground." In any case, most physicians continue to assume that hyperactivity is biologically based, and when researchers are asked whether any evidence supports this assumption, a typical response is "Not yet."

The Effects of Drug Therapy

IF THE EMPHASIS AMONG RESEARCHERS ON BIOLOGY crowds out work on prevention, environmental causes, and alternative forms of therapy, a similar pattern occurs among clinicians. The most striking consequence of assuming that an unusually distractible or impulsive child is suffering from a disease is the tendency to turn to medication to solve the problem.

"Assumptions of organicity have often been used, in practice, as a justification for prescribing drugs," Jacobvitz and Sroufe have written. In an interview Sroufe adds, "The majority of hyperactive kids today are treated only with Ritalin—the vast majority."

Ritalin is the brand name for methylphenidate, which was approved for use with children in 1961. Like Dexedrine (dextroamphetamine), another stimulant some-

times prescribed for hyperactivity, Ritalin is classified as a Schedule II drug, meaning that among substances with legitimate medical use it is regarded as having the highest potential for abuse, and its manufacture is regulated by the Drug Enforcement Administration. (Other drugs in that class include morphine and barbiturates.)

The best available figures on the use of drugs for ADHD come from a careful biennial survey of Baltimore County schools by the psychiatrist Daniel Safer. In 1987 among public elementary school students in that county 5.9 percent were taking stimulants. Extrapolating to the nation as a whole, and correcting for the fact that Maryland doctors are a bit freer with their prescription pads than their counterparts elsewhere, Safer estimates that three quarters of a million children nationwide are now receiving stimulants. "It's been increasing steadily since we first took a look, in 1971, and it'll go over one million in the 1990s if the present trend continues," he says.

Indeed, about four out of five children diagnosed as hyperactive are put on stimulants at some point, making drug therapy far and away the treatment of choice in the United States. (This does not seem to be true elsewhere; in most of Western Europe, for example, children rarely or never receive medication for hyperactivity.)

In the early 1970s, media coverage of Ritalin use seeded a storm of controversy, culminating in the publication of a widely read book by Peter Schrag and Diane Divoky: *The Myth of the Hyperactive Child*. This period also saw the publication of Benjamin Feingold's *Why Your Child Is Hyperactive*, which argued that drugs were unnecessary because hyperactivity could be cured by restricting the amounts of sugar and food additives in the child's diet. (Subsequent studies have been unable to demonstrate that diet can bring about any significant improvement in the great majority of hyperactive children.)

Lately the medication controversy has been heating up again, largely because an arm of the Church of Scientology, which calls itself the Citizens Commission on Human Rights, is picketing professional conferences and helping to sponsor a series of legal actions charging physicians with malpractice. But if the church group's claim that "psychiatry is making drug addicts out of America's school children" is, understandably, not taken seriously by those in the field, neither does the drug deliver the benefits claimed by some proponents.

While the idea that stimulants can have a quieting effect may seem peculiar, the fact is that these drugs don't so much slow down activity as redirect it. A child on Ritalin may move around just as much as a nonmedicated child over the course of a day, but he will be better able to sit still for tasks that require concentration. His activity is more goal-directed, less aimless, more likely to be "on-task" than it was before. Besides being less distractible and better able to sustain attention, the medicated child typically becomes less aggressive and less apt to get into trouble, less obnoxious to his peers, easier for his teach-

ers to handle, and generally more compliant. Unsurprisingly, parents and teachers are often pleased with the change they see in a child who is put on Ritalin.

That's the good news. The bad news has to do with side effects—about which more in a moment—and with the drug's efficacy, which is probably the greater of the two problems. The evidence shows, first, that drugs do absolutely nothing for 25 to 40 percent (depending on whose estimate you trust) of hyperactive children. Kenneth Gadow, in his book-length contribution to a series called *Children on Medication*, reported, "Some youngsters even become worse on medication! Unfortunately, there is no way to tell whether medication is going to work other than to have the child take it."

Second, a large proportion of the children who do respond to Ritalin also improve on a placebo. After weeding out the nonresponders, the pediatrician Esther Slesator followed a group of medicated children for two years and then began slipping some of them sugar pills. Of twenty-eight subjects for whom definite data were available, eleven continued to behave as if they were getting

education in facilitating academic performance." Gadow concluded.

On reflection, this doesn't seem so strange. Drugs do not remedy cognitive deficits or create skills. And if hyperactivity is the result of learning problems rather than the cause, two psychologists pointed out in a 1988 article, "interventions directed toward suppressing [hyperactive] behaviors will have no long-term effects in reducing either the [hyperactivity] itself or learning difficulties unless the latter are specifically treated."

Some children's behavior seems to improve only at relatively high dosages, around one milligram per kilogram of body weight. This much medication tends to have a detrimental effect on thinking skills, thus forcing the careful physician to choose between reducing hyperactivity and optimizing cognitive performance. What's more, "the [dosage] where teachers perceive the most improved classroom behavior is also associated with side effects," Gadow has reported.

These findings suggest hard questions about just why children are put on Ritalin in the first place. Even assum-

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the real thing. Russell Barkley's review of several hundred studies indicates that about 40 percent of children are rated as improved when they're on a placebo, although the magnitude of the improvement generally isn't as great as it is for children receiving Ritalin.

Third, even for children who respond well to stimulants, the effect is a temporary suppression of symptoms, not a cure. A child may have been taking Ritalin for years, but within hours of the last dose he will be indistinguishable from a hyperactive child who has never taken Ritalin. Or *almost* indistinguishable: in what is known as a rebound effect, when the drug wears off the child will briefly become a little worse than he was before.

Fourth, although some children on stimulants are able to do more work and thus receive better grades, drugs do nothing to enhance actual academic achievement. Beneficial effects on concentration had long been assumed to translate into achievement, but an analysis that Russell Barkley and Charles Cunningham made of seventeen studies in the late 1970s, and a subsequent analysis by Kenneth Gadow of another sixteen studies in 1985, were uniformly discouraging. "Certain behavioral interventions are clearly superior to stimulant medi-

ing that drugs make a difference, should they be prescribed to help a third-grader learn better? How about to reduce fidgeting, which, Safer points out, is "neither a disruptive influence nor highly unusual"? Or to establish docility, so that children will follow the rules and not annoy adults? At best the drug "may have much greater relevance for stress reduction in caregivers than intrinsic value to the child," Gadow has written. Gabrielle Weiss and her colleagues found that "children on the whole preferred being without 'the pills,'" and in a follow-up study of adults who had been medicated as children, Weiss's group found that slightly more listed medication as a hindrance than listed it as a help.

This reaction may be due in part to the social stigma of having to take pills every day, but part of it clearly has to do with side effects. Overall, research on these effects does not support the extravagant claims of some critics, including the Church of Scientology. Extreme adverse reactions are very rare and crop up occasionally with other medications as well.

If Ritalin stunts growth, the effect seems to be temporary. (It does seem possible that someone who continued taking medication straight into adulthood would be per-

manently affected, but no one knows for sure.) Other concerns, including reports of elevated blood pressure, facial tics, insomnia, and weight loss, have led specialists to recommend that younger children not be given stimulants. For older children, most of these side effects turn out to be either uncommon or controllable by modifying the dosage or the medication schedule.

Such adjustments may not, however, eliminate all the behavioral side effects. According to some studies, children on Ritalin sometimes become withdrawn and stare off into space, a behavior that critics call the "zombie" effect. While stimulants make these children less likely to annoy their peers or pick fights, they are also less likely to interact with others at all. And some investigators suspect that medication leads children and their parents to attribute any improvement to the pills rather than to social causes or to factors within their control.

Barbara Henker and Carol Whalen, psychologists at the University of California, have found that when someone is told that a given child is on medication, he or she is more likely to believe that the child's problems are serious and due to "nervous system dysfunction" than if told the child is in a behavioral treatment program. (Hence the circle is completed: assumptions of a biological cause lead to drugs, and drugs lead to assumptions of a biological cause.)

These concerns seem to have prompted little hesitation about prescribing stimulants. The number of prescriptions continues to rise, and more and more psychiatrists are talking seriously about keeping, or putting, adolescents and adults on stimulants too.

Ask professionals to name the most important finding relevant to hyperactivity within the past decade and they will tell you it is the discovery that the disorder doesn't disappear at puberty. Some hyperactive children continue to have problems with school and work, to be antisocial and otherwise troubled, as they get older.

But a closer look at these data suggests that something else is going on. One of the diagnoses that overlaps to a considerable extent with ADHD is "conduct disorder," which refers to aggressive, disobedient, troublemaking behavior; perhaps two thirds of hyperactive children also qualify for that diagnosis. Children who become delinquent in later life are primarily from the conduct-disorder group, rather than being a random sample of those who fidget and can't pay attention. Some of the non-conduct-disorder group, not surprisingly, may have trouble finishing school and may continue to be more distractible than most people when they grow up, but they apparently don't become mentally ill or get in trouble any more than the rest of us. The major revelation in the field during the past ten years, then, turns out to be this: if you were aggressive and antisocial as a child, you may also be aggressive and antisocial as an adult.

Hyperactivity in Perspective

EVEN THOSE RESEARCHERS WHO ARE COMFORTABLE with both the diagnosis of hyperactivity and the use of Ritalin have urged that considerable care be taken in prescribing the drug and deciding who gets it. But virtually every common-sense recommendation offered in the professional journals is routinely ignored by physicians throughout the country.

Even though studies have shown that a child cannot be properly diagnosed on the basis of an office visit, a California survey of pediatricians revealed that the way children acted in front of them "seemed to be the most important characteristic in physician judgments." Doctors who seek further evidence to confirm their diagnosis may simply prescribe drugs and wait to see whether they work. According to a national survey done in 1987, three quarters of pediatricians continued to believe that a child's response to medication was helpful for purposes of diagnosis—this despite proof that many hyperactive children do not respond to stimulants, and that many non-hyperactive children do.

According to studies conducted in several states, teachers often play little or no role in diagnosis or treatment of hyperactivity, even though their observations are critical. Moreover, against the advice of specialists, clinicians often prescribe unnecessarily high doses of Ritalin, fail to recommend counseling and other non-medical treatments in addition to stimulants, and fail to schedule periodic "holidays" from the drug, as they should.

Much as the public outcry over Ritalin in the 1970s may well have "spurred a wave of better designed studies," according to the psychiatrist Mina K. Dulcan, so the newly filed malpractice suits, Russell Barkley concedes, may "motivate practitioners to bring their practices a little more up to date." Barkley emphasizes, nonetheless, that he believes that the practitioners being sued are not, strictly speaking, negligent. Negligence is judged according to customary practice in the field, not by the standards suggested by research. Put bluntly, this means that if most clinicians are diagnosing casually and prescribing irresponsibly, bringing legal action against any one of them will be difficult.

Diagnoses of other psychological disorders may be similarly arbitrary and subjective, made by committee and poorly defined, insensible of social factors and conducive to unfounded assumptions about biological causes. On the one hand, this may serve to excuse what goes on with hyperactivity, or at least to place it in perspective. On the other hand, it may provoke larger, more disturbing questions about the theory and practice of mental health in the United States. □